What is claimed is:

1. A toner conveyance device for conveying toner particles, comprising:

(a) a toner mixing unit having a toner introducing portion to introduce toner particles, for mixing the toner particles introduced from the toner introducing portion with air to make a toner fluid;

(b) a first conveyor for receiving the toner fluid produced in the toner mixing unit and conveying the toner fluid;

(c) a toner separation unit for separating the toner fluid conveyed by the first conveyor into air and toner particles, the toner separation unit having a toner discharging portion for discharging the separated toner particles to an outside;

(d) a second conveyor for conveying the air separated by the toner separation unit back to the toner mixing unit; and

(e) a tightly closed circulation path of air, formed starting at the toner mixing unit which leads to the toner separation unit through the first conveyor and returning to the toner mixing unit again through the second conveyor.

2. The toner conveyance device of claim 1, further comprising a controller for detecting a conveyance amount of the toner fluid of the first conveyor and controlling a conveyance amount of the air of the second conveyor on the basis of the conveyance amount of the toner fluid.

3. The toner conveyance device of claim 2, wherein the controller detects the conveyance amount of the toner fluid of the first conveyor and controls to make constant a ratio of the conveyance amount of the toner fluid to the conveyance amount of the air of the second conveyor.

4. The toner conveyance device of claim 2, wherein the controller detects the conveyance amount of the toner fluid of the first conveyor, and when the conveyance amount is not greater than a target conveyance amount, the controller increases the conveyance amount of the air of the second conveyor.

5. The toner conveyance device of claim 2, wherein the controller detects the conveyance amount of the toner fluid of the first conveyor, and when the conveyance amount is not

greater than a target conveyance amount, the controller stops the first conveyor and the second conveyor.

6. The toner conveyance device of claim 2, further comprising a warning device for giving a warning, wherein the controller detects the conveyance amount of the toner fluid of the first conveyor, and when the conveyance amount is not greater than a target conveyance amount, the controller controls the warning device to give a warning.

7. The toner conveyance device of claim 2, wherein the controller controls a toner introduction amount of the toner introducing portion on the basis of the conveyance amount of the toner fluid of the first conveyor.

8. The toner conveyance device of claim 1, the controller detects and controls each of the number of rotations of pump motors constituting the first conveyor and the second conveyor, respectively.

9. The toner conveyance device of claim 1, wherein each of the first conveyor and the second conveyor has a conveyance path of toner particles, at least a part of each

conveyance path is formed of a flexible pipe made of resin or rubber, a member made of metal is wound around an outer surface of at least a part of the flexible pipe, and the member is grounded.

10. The toner conveyance device of claim 9, wherein at least a part of the flexible pipe is made of metal, and the pipe made of metal is grounded.

11. The toner conveyance device of claim 9, wherein at least a part of the flexible pipe is made of a flexible member made of silicone rubber or fluorinated resin.

12. The toner conveyance device of claim 1, wherein the toner mixing unit has a toner detector for detecting an amount of toner therein, and when the toner detector detects that an amount of toner accumulated in the toner mixing unit exceeds a prescribed amount, the controller stops the first conveyor and the second conveyor.

13. The toner conveyance device of claim 1, wherein the toner mixing unit has a toner detector for detecting an amount of toner therein, and when the toner detector detects

that an amount of toner accumulated in the toner mixing unit exceeds a prescribed amount, the controller gives a warning.

14. The toner conveyance device of claim 1, wherein the toner separation unit has a toner detector for detecting an amount of toner therein, and when the toner detector detects that an amount of toner accumulated in the toner separation unit exceeds a prescribed amount, the controller stops the first conveyor and the second conveyor.

15. The toner conveyance device of claim 1, wherein the toner separation unit has a toner detector for detecting an amount of toner therein, and when the toner detector detects that an amount of toner accumulated in the toner separation unit exceeds a prescribed amount, the controller gives a warning.

16. The toner conveyance device of claim 1, wherein the toner separation unit has a through passage for making the toner fluid to meander.

17. An image forming apparatus comprising a toner conveyance device as set forth in claim 1.